World of Science: Journal on Modern Research Methodologies

Volume 2 Issue 6, Year 2023
ISSN: 2835-3072
https://univerpubl.com/index.php/woscience

BIOLOGY AND PHYTOCHEMICAL COMPOSITION OF MEDICINAL SPECIES

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Article Information

Received: April 23, 2023
Accepted: May 26, 2023
Published: June 17, 2023

ABSTRACT

Currently, more than 100 species of medicinal plants are used in medical practice, which is 2.5% of the species in the flora of Uzbekistan, although at least 1557 species of medicinal plants are known to grow on the territory of the republic. , they were used in the medical practice of Central Asia and nearby peoples. Therefore, the protection, cultivation and sustainable use of medicinal plants in our country is a very urgent problem.First: Quantitative results related to the amount of lead present in the soil for filling stations and control area. Second: Quantitative results of some physical factors of the soil of filling stations. Third: Physiological results of some blood tests for some workers in the stations of smokers and control group.

Keywords: Flower is a fruit, oblong, ovoid, ovate, oval and elliptic in shape, introduction, vegetation, budding, general flowering, fruit, food additives, flavonoids, ascorbic acid, organic acids.

INTRODUCTION

In the Strategy of Actions for the further development of the Republic of Uzbekistan, "development of the pharmaceutical industry, providing the population and medical institutions with affordable, high-quality drugs..." PQ-251 dated May 20, 2022 "Cultural cultivation of medicinal plants" and decisions on measures to organize their wide use in processing and treatment were adopted [3,4].

In the implementation of these tasks, substantiating the morpho-biological characteristics of Dalachoy species in different climatic conditions, determining their phytochemical composition, and developing recommendations for the cultivation of raw materials are of significant scientific importance.

***H. elongatum* L.** Perennial herb. The height is 40-50 cm, the leaves are opposite, 15-20 mm. Changchili is short compared to the petals, it blooms and seeds in July-August. It grows in rocky and soft soils in the mountain zone. The flowers are collected in a shield-shaped or round-egg-shaped inflorescence. Petals are 18-20 mm, longer than pollen.

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The plant contains essential oils 0.25%, vitamin C, coumarin, flavoring agent 9.84%, flavonoids 18%, anthocyanins 5.32%, vitamins P, E. In scientific medicine, the flower is used to remove stomach worms, to prevent fever (malaria) and diarrhea. In folk medicine, it is used to treat stomach worms and various worms in the stomach.

***N. scabrum* L**. - Perennial herb. Height 20 - 40 cm. The stem and branches are gnarled. The leaves are long - pencil or lanceolate, 10-15 mm. Branches grow from leaf axils. The ball-flowered thyroid flower blooms and seeds in May - July. It grows in rocky and gravelly areas of hills and mountains.

The plant contains alkaloid, essential oil, coumarin, cotechin 18%, saponin, vitamin C, P, flavoring substances and flavonoids 5.1%.

Medicinal preparations of field plant (tincture, nastoyka, liquid extract, imanin preparation) in scientific medicine for gastrointestinal (colitis, diarrhea), oral cavity (gingivitis, stomatitis) and II and III degree diseases used in the treatment of burns. In folk medicine, ground organs are used in the treatment of jaundice (decoction)[4,5,6,7].

Research object and used methods. Determination of the phytochemical composition of plants was carried out in the Laboratory of Flavonoids together with the employees of the Institute of Plant Substances Chemistry. All chemical analyzes were carried out by the methods described in the XII edition of the State Pharmacopoeia [1].

The result and their analysis. In the process of analysis, the amount of nutrients, organic acids, flavonoids and ascorbic acid in the budding, flowering and roots of the plant was determined.

During the analysis of scabrum (H. scabrum), the amount of nutrients, organic acids, flavonoids and ascorbic acid in the budding, flowering and roots of the plant was determined.



Figure 1 Flowering process of H. scabrum

The obtained results are presented in the table. It was clear from the analysis that the highest amount of additives was observed in the flowering phase and made up 9.68%. This indicator was equal to 6.93% in the period of field cutting and 6.87% in the root.

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The relatively high amount of organic acids also corresponded to the flowering period and made 1.56%. When studying the composition of flavonoids, the highest amount of these substances was observed in the budding phase, equal to 2.87%. This indicator was 0.69% in the flowering phase and 0.38% in the root composition.

Table 1

***H. scabrum*ni phytochemical composition under the conditions of introduction**

Accumulation of substances in organs	Biologically active substances, composition %				
	Moisture	Additives	Organic acids	Flavonoids	Ascorbic acid
Budding	6,45	6,93	1,37	2,87	0,011 (11,8mg/100g)
Flowering	5,82	9,68	1,56	0,69	0,010 (10,7mg/100g)
Root	6,98	6,87	1,26	0,38	0,0068 (6,82mg/100g)

A relatively high level of ascorbic acid was observed in the budding phase and was equal to 0.011 (11.8 mg/ 100 g). It was found that ascorbic acid was 0.010 (10.7 mg/100 g) in the flowering phase of field bean and the lowest amount was observed in the root, equal to 0.0068 (6.82 mg/100 g).

So, from the results of the above analysis, it is clear that the field flower is mainly used to obtain nutrients

It is advisable to use it during the budding phase and to extract ascorbic acid and flavonoids.

Therefore, as a result of these studies, the necessary drugs were created on the basis of active substances isolated from individual plants and successfully applied in medical practice.

So based on our analysis h. raw material can be obtained from the scabrum plant in the phase of gross budding and flowering. we think that the roots can be easily used to obtain the chemical elements necessary for the pharmaceutical industry.

This study also determined the amount of nutrients, organic acids, flavonoids and ascorbic acid in the budding, flowering and roots of the rough field H. elongatum plant. The obtained results are presented in the table. It was clear from the analysis that the highest amount of additives was observed in the flowering phase and made 9.22%. This indicator was equal to 7.50% and 7.80% in the root of the field.

The relatively high amount of organic acids also corresponded to the flowering period and made 1.54%. When studying the composition of flavonoids, the highest amount of these substances was observed in the budding phase and was equal to 3.48%. This indicator was 0.58% in the flowering phase and 0.52% in the root composition. A relatively high level of ascorbic acid was observed in the budding phase and was equal to 0.012 (12.8 mg/ 100 g). It was found that

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ascorbic acid was 0.011 (11.2 mg/100 g) in the flowering phase and the lowest amount was observed in the root, equal to 0.0078 (7.83 mg/100 g).

So, from the results of the above analysis, it became clear that it is appropriate to use the flowering phase of this plant in order to obtain nutrients, and to use it when it enters the budding phase to extract ascorbic acid and flavonoids.

Table 2

Phytochemical composition of H. elongatum under introduction conditions

Accumulation of substances in organs	Biologically active substances, composition %				
	Moisture	Additives	Organic acids	Flavonoids	Ascorbic acid
Budding	6,22	7,50	1,32	3,48	0,012 (12,8mg/100g)
Flowering	5,68	9,22	1,54	0,58	0,011 (11,2mg/100g)
Root	7,62	7,80	1,24	0,52	0,0079 (7,83mg/100g)



Fig. 2 Flowering and drying process of H. elongatum

It is written in the literature that it is recommended to prepare the raw material from the field plant types when they are blooming and when the fruit is not yet ripe, the top 25-30 cm of the plant.

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Based on our analysis, we recommend taking raw materials from these plants in the budding and flowering phase. It should also be noted that under the conditions of introduction, it is possible to use the roots of partially cultivated field species to obtain chemical elements necessary for the pharmaceutical industry[6].

Summary

The study of the phytochemical composition of dalchoi showed that the highest amount of nutrients was found in flowering, flavonoids and ascorbic acid in relatively large quantities in the budding phase.

In order to obtain flavoring substances, it is advisable to use it in the flowering phase of the field, and to extract ascorbic acid and flavonoids in the budding phase.

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